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10/080,697	02/25/2002	Takuji Maeda	401584	8364

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EXAMINER

SCHUBERT, KEVIN R

ART UNIT PAPER NUMBER

2137

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/080,697	MAEDA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kevin Schubert	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 4-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### DETAILED ACTION

Claims 4-21 have been considered.

#### ***Claim Rejections - 35 USC § 112***

5 The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10

Claims 5-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s),

15 at the time the application was filed, had possession of the claimed invention. Regarding claim 5, Examiner does not find a) a performance memory storing identification accuracy performance of the authentication devices or b) a log analyzer for analyzing the identification accuracy performance of the authentication devices, and for updating the accuracy thresholds of the authentication devices based on analysis results of the log analyzer. Appropriate correction or specific reference to where these

20 limitations are disclosed is required.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

25

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Examiner is unclear of the meaning of "authenticating identities persons" as claimed. Appropriate

30 correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- 5 (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 10

Claims 4,7-16, and 18-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Batson, U.S. Patent Application No. 2002/0169874.

15

As per claims 15,18, and 20, applicant describes an authentication system comprising the following limitations which are met by Batson:

- a) a plurality of authentication devices for collecting respective biometric indicia from a person ([0020]-[0021], Fig 3);
- 20 b) input means for inputting respective accuracy thresholds for each of the authentication devices and target identification accuracy for the system in identifying a person supplying biometric indicia through the authentication devices ([0020]-[0021], Fig 3);
- c) a memory storing the accuracy thresholds input for each of the authentication devices and the target identification accuracy input for the authentication system ([0020]-[0021]);
- 25 d) calculating means for calculating identification accuracy in identifying a person using biometric indicia input through the respective authentication devices based on the accuracy thresholds input, for each of the authentication devices, considered individually and for at least one combination of at least two of the authentication device ([0020]-[0025]);

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e) authentication device selection means for use in the authentication system only the authentication devices and combinations of the authentication devices having calculated identification accuracies meeting the target identification accuracy of the system ([0020]-[0025]).

5 As per claim 4, the applicant describes the authentication system of claim 16, which is met by Batson, with the following limitation which is also met by Batson:

Wherein the limiting conditions include at least one of:

- a) a plurality of kinds of the plurality of authentication devices (Fig 3);
- b) priority in the plurality of kinds of the plurality of authentication devices;
- 10 c) combinations of the plurality of authentication devices;
- d) priority in the combinations of authentication devices;
- e) number of the plurality of the authentication devise for combination;
- f) priority in the number of authentication devices for combination;
- g) number of combinations.

15 As per claim 7, the applicant describes the authentication system of claim 15, which is met by Batson, with the following limitation which is also met by Batson:

Wherein the identification accuracy of the authentication devices includes at least one of:

- a) a probability density function of a matching score indicating degrees of coincidence between
- 20 input biometric indicia and registration data for a person registered in the system for authenticating identities of persons;
- b) a numerical table (Fig 3);
- c) a probability distribution;
- d) a parameter for approximation by a normal distribution.

25 As per claims 11-14, the applicant describes an authentication-selection program executed on a computer, the program comprising the method of selecting according to claim 18 ([0020]-[0025]).

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As per claims 16,19, and 21, the applicant describes the authentication system of claims 15,18, and 20, which is met by Batson, with the following limitation which is also met by Batson:

Wherein the input means receives and the memory stores limiting conditions limiting the authentication devices and combinations of the authentication devices available for use in the authentication system for identifying a person supplying biometric indicia to the authentication system and the authentication device selection means selects for use in the authentication system only authentication devices and combinations of authentication device meeting the target identification accuracy of the system that has been input and the limiting conditions ([0020]-[0025]).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Batson in view of Hiratsuka, U.S. Patent No. 6,526,396.

As per claim 5, the applicant describes the authentication system of claim 15, which is met by Batson, with the following limitation which is also met by Hiratsuka:

a) a performance memory storing identification accuracy performance of the authentication devices (Batson: [0020]-[0025]);

b) a log analyzer for analyzing the identification accuracy performance of the authentication devices, and for updating the accuracy thresholds of the authentication devices based on analysis results of the log analyzer (Hiratsuka: Col 18, line 43 to Col 19, line 8);

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Batson discloses all the limitations of claim 15. However, Batson does not disclose that accuracy thresholds may be updated. Hiratsuka discloses this idea. It would have been obvious to one of ordinary skill in the art to combine the ideas of Hiratsuka with those of Batson because doing so makes the system more robust by incorporating functionality to make thresholds more precise.

5

As per claim 6, applicant describes the authentication system of claim 5, which is met by Batson in view of Hiratsuka, with the following limitation which is also met by Batson:

Wherein the performance memory stores the identification accuracy performance for each person registered in the system for authenticating identities persons (Batson: [0020]-[0025]).

10

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Batson in view of Cho, U.S. Patent No. 6,151,593.

15

As per claim 17, the applicant describes the authentication system according to claim 15, which is met by Batson, with the following limitation which is met by Cho:

Wherein the target identification accuracy is defined as a ration of false accepted identifications incorrectly identifying a person as recognized to total accepted identifications identifying a person as recognized and a ratio of false rejected identifications incorrectly identifying a person as not recognized to total rejected identifications identifying persons as not recognized (Cho: Col 1, lines 45-52).

20

Batson describes all the limitations of claim 15. However, Batson does not describe that the target identification accuracy utilizes a false accept rate (FAR) and a false reject rate (FRR). Cho discloses an authentication system which teaches this concept. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Cho with those of Batson and utilize FAR and FRR in defining the target identification accuracy of Batson because doing so allows for a balance between security and efficiency in the authentication system.

25

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 4,7-16, and 18-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawan, U.S. Patent Application No. 2001/0049785.

As per claims 15,18, and 20, applicant describes an authentication system comprising the following limitations which are met by Kawan:

a) a plurality of authentication devices for collecting respective biometric indicia from a person ([0029]-[0033]);

b) input means for inputting respective accuracy thresholds for each of the authentication devices and target identification accuracy for the system in identifying a person supplying biometric indicia through the authentication devices ([0029]-[0033]);

c) a memory storing the accuracy thresholds input for each of the authentication devices and the target identification accuracy input for the authentication system ([0029]-[0033]);

d) calculating means for calculating identification accuracy in identifying a person using biometric indicia input through the respective authentication devices based on the accuracy thresholds input, for each of the authentication devices, considered individually and for at least one combination of at least two of the authentication device ([0029]-[0033]);

e) authentication device selection means for use in the authentication system only the authentication devices and combinations of the authentication devices having calculated identification accuracies meeting the target identification accuracy of the system ([0029]-[0033]).



As per claims 4 and 7, the applicant describes the authentication system of claims 16 and 15, which are met by Kawan, with the following limitation which is also met by Kawan:

Wherein the limiting conditions include at least one of:

- 5 a) a plurality of kinds of the plurality of authentication devices (Fig 3);
- b) priority in the plurality of kinds of the plurality of authentication devices;
- c) combinations of the plurality of authentication devices;
- d) priority in the combinations of authentication devices;
- e) number of the plurality of the authentication device for combination;
- 10 f) priority in the number of authentication devices for combination;
- g) number of combinations.

As per claims 11-14, the applicant describes an authentication-selection program executed on a computer, the program comprising the method of selecting according to claim 18 ([0029]-[0033]).

15

As per claims 16,19, and 21, the applicant describes the authentication system of claims 15,18, and 20, which is met by Kawan, with the following limitation which is also met by Kawan:

Wherein the input means receives and the memory stores limiting conditions limiting the authentication devices and combinations of the authentication devices available for use in the authentication system for identifying a person supplying biometric indicia to the authentication system and the authentication device selection means selects for use in the authentication system only authentication devices and combinations of authentication device meeting the target identification accuracy of the system that has been input and the limiting conditions ([0029]-[0033]).

25

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawan in view of Hiratsuka, U.S. Patent No. 6,526,396.

As per claim 5, the applicant describes the authentication system of claim 15, which is met by Kawan, with the following limitation which is also met by Hiratsuka:

a) a performance memory storing identification accuracy performance of the authentication devices (Kawan: [0029]-[0033]);

b) a log analyzer for analyzing the identification accuracy performance of the authentication devices, and for updating the accuracy thresholds of the authentication devices based on analysis results of the log analyzer (Hiratsuka: Col 18, line 43 to Col 19, line 8);

Kawan discloses all the limitations of claim 15. However, Kawan does not disclose that accuracy thresholds may be updated. Hiratsuka discloses this idea. It would have been obvious to one of ordinary skill in the art to combine the ideas of Hiratsuka with those of Kawan because doing so makes the system more robust by incorporating functionality to make thresholds more precise.

As per claim 6, applicant describes the authentication system of claim 5, which is met by Kawan in view of Hiratsuka, with the following limitation which is also met by Kawan:

Wherein the performance memory stores the identification accuracy performance for each person registered in the system for authenticating identities persons (Kawan: [0029]-[0033]).

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawan in view of Cho, U.S. Patent No. 6,151,593.

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As per claim 17, the applicant describes the authentication system according to claim 15, which is met by Kawan, with the following limitation which is met by Cho:

Wherein the target identification accuracy is defined as a ration of false accepted identifications incorrectly identifying a person as recognized to total accepted identifications identifying a person as recognized and a ratio of false rejected identifications incorrectly identifying a person as not recognized to total rejected identifications identifying persons as not recognized (Cho: Col 1, lines 45-52).

Kawan describes all the limitations of claim 15. However, Kawan does not describe that the target identification accuracy utilizes a false accept rate (FAR) and a false reject rate (FRR). Cho discloses an authentication system which teaches this concept. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Cho with those of Kawan and utilize FAR and FRR in defining the target identification accuracy of Kawan because doing so allows for a balance between security and efficiency in the authentication system.

### ***Response to Arguments***

Applicant's arguments filed 9/27/05 with regard to claim 15 in light of Batson have been fully considered but they are not persuasive. Applicant argues that Batson does not describe "calculation of any identification accuracy or establishment of which combinations of information data provide an accurate authentication of personal identify to determine whether access will be granted" (see Remarks page 4). Examiner respectfully disagrees.

Batson discloses an authentication system in which authentication devices and combination of authentication devices are used to determine whether access will be granted. In one embodiment, authentication is via biometric information [0020]. Batson also discloses that combinations of authentication devices may be used to provide an accurate authentication and to determine whether access will be granted:

"At step 202, various combinations of access characteristics are associated with security levels. For example, Fig. 3 is a table 302 of an example mapping of combinations of access characteristics to security levels. Table 302 lists only a few of the possible access characteristics and only a few of the possible combinations that could be used to define access privileges" [0025].

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Fig 3 also shows that combinations of authentications have associated identification accuracy levels. These are used to determine the types of access privileges that will be granted. Accordingly, Examiner does not find the applicant's argument persuasive.

5            Applicant's arguments with regard to claim 15 in light of Kawan have been fully considered but are not persuasive. Applicant argues that there is no calculation or selection in Kawan. Examiner respectfully disagrees.

            Kawan discloses that a user may select to present biometric indicia in a particular fashion in order to authenticate himself. Authentication of a user is based on whether the authentication modes, e.g.  
10    fingerprint, face, etc, selected are satisfied. If the user satisfies the calculated identification accuracies of the authentication modes selected and meets the target identification accuracy, access is granted.

### ***Conclusion***

            Applicant's amendment necessitated the new ground(s) of rejection presented in this Office  
15    action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

            A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH  
20    shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX  
MONTHS from the date of this final action.

            Any inquiry concerning this communication or earlier communications from the examiner should  
25    be directed to Kevin Schubert whose telephone number is (571) 272-4239. The examiner can normally be reached on M-F 7:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application  
5 Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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KS

  
**EMMANUEL L. MOISE**  
**SUPERVISORY PATENT EXAMINER**

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